

Embassy of the United States of America

Khartoum, Sudan

August 6, 2020

Dear Prospective Vendors,

Subject: Request for Quotation NO: 19SU4020Q0001

The US Embassy Khartoum would like to call for qualified contractors/vendors to **Supply and Install Air Circuit Breaker and ATS Upgrade for the villas** , You are invited to submit a quotation. The Request for Quotations (RFQ) consists of the following sections:

- 1- Standard Form SF-1449
- 2- Basic information, statement of work or specifications and technical qualifications.

The Embassy plans to award this project to responsible company submitting lowest price technically acceptable. We intend to award this project based on initial quotations, without holding discussions, although we may hold discussions with companies in the competitive range if there is a need to do so. You are encouraged to make your quotation competitive.

You are also cautioned against any collusion with other potential offerors regarding price quotations to be submitted. The RFQ does not commit the American Embassy to make any award. The Embassy may cancel this RFQ or any part of it.

A site visit will be held on August 18,2020 at 10:00AM. Prospective bidders should contact **Aisha Suliman** at Sulimanaa@state.gov OR on phone number +249-1-870-22562 no later than August 12, 2020 at 3:00PM for additional information and to arrange entry to the property.

Please read the RFQ carefully, and if you are interested Return the completed SF-1449 to:

The U.S. Embassy
Procurement Section / GSO
P.O. Box 669,
Kilo 10, Soba

Oral quotations will not be accepted.

quotation due date August 27,2020 at 3:00PM.

Sincerely,

John Everman

Contracting Officer

STATEMENT OF WORK
ATS AND CIRCUIT BREAKERS REPLACEMENT
PRESEDENTIAL VILLAS COMPOUND
U.S. EMBASSY KHARTOUM, SUDAN

STATEMENT OF WORK

ATS AND CIRCUIT BREAKER REPLACEMENT

PART 1 GENERAL

1.1 General

This statement of work covers the work required at US Embassy Khartoum - Sudan. All construction and materials shall be in accordance with the U.S., local codes and as approved by the Contracting Office Representative COR.

1.2 Summary of work

This contract includes providing and installation of Four (4) Air Circuit Breaker (ACB) and Replace Two (2) existing ATS controllers. The manufacturers of the ACB is Mitsubishi and the specification of the ACB is as follows: Mitsubishi AE-2500 SS.

The existing ATS is considered obsolete and need to be replaced with new one , contractor shall provide and install new ATS that compatible with existing bus coupler controller which is Intel vision 5 , Contractor shall provide suggested equipment in details includes but not limited to drawing specification and layout for both ATSs.

1.3 Submittals

The contractor shall submit **as part of his bid, the following.**

- 1.3.1 Construction schedule by working days.
- 1.3.2 Safety program as detailed in item 4.1
- 1.3.3 Technical data for:
 - A. Air Circuit Breakers.
 - B. ATS Controller and its accessories.
 - C. Updated single line diagram for the ATS after installation.

Product data includes rated capacities, furnished specialist and accessories for the product indicated and include the following:

- A. Provide dimensional drawings and product data.
- B. Strictly adhere to QUALITY ASSURANCE requirements as stated in section 1.4 of this specification
- C. Installation, Operation, and Maintenance Manual (IOM): Provide manufacturer's installation, operations, and maintenance manual, including instructions on installation, operations, maintenance, receiving, handling, storage, safety information and cleaning.
- D. A troubleshooting guide, parts list, warranty and electrical wiring diagrams

1.4 QUALITY ASSURANCE

- A. Comply with the National Electrical Manufacturers Association (NEMA), standards for Air Circuit Breaker and ATS

PART 2 PRODUCTS:

2.1 Air Circuit Breaker.

The ACB shall be Manufactured by Schneider NW Series, ABB TMax Series or equivalent with the following specifications:

- Rackmount Type.
- Frame Size 2500 A
- 4 Pole
- Rated Frequency 50/60 Hz.
- Insulation Volt 1000 VAC
- Operational Volt 690 VAC.
- Ambient Temperature 50 C
- Short Time 1 Sec 65 KA.
- Withstand Current 3 Sec 65 KA
- Utilization Cast B
- Rated Breaking Capacity (Symmetrical) IEC 947-2 BS VDE

	Ue	Ics/Icu
With Inst	690 VAC	60/65 KA
	600 VAC	65/65 KA
	500 VAC	85/85 KA
With MCR	690 VAC	50/50 KA
	600 VAC	65/65 KA
	500 VAC	65/65 KA

2.2 ATS.

The contractor shall provide and install 2 new ATS Controllers that compatible with the existing switchgear configuration and shall comply with the following:

A Control

1. Provide ComAp Controller Model IM-NT-BB to match the existing BTB Controller as an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and control through the communications interface port or USB or equivalent.

The following parameters shall only be adjustable via a password protected programming on the controller:

- a. Nominal line voltage and frequency
- b. Single or three phase sensing
- c. Operating parameter protection
- d. Transfer operating mode configuration (Standard transition, Programmed transition, or Closed transition)

B Voltage and Frequency

2. Voltage (all phases) and frequency on both the normal and emergency sources shall be continuously monitored, with the following pickup, dropout, and trip setting capabilities shown as % of nominal unless otherwise specified:

Parameter	Dropout/Trip	Pickup/Reset
a Under voltage	75 to 98%	85 to 100%
b Over voltage	106 to 135%	95 to 100% of trip
c Under frequency	95 to 99%	80 to 95%
d Over frequency	101 to 115%	105 to 120%
e Voltage unbalance	5 to 20%	3 to 18%

2. Repetitive accuracy of all settings shall be within $\pm 0.5\%$ over an operating temperature range of -20°C to 70°C .

3. An adjustable dropout time for transient voltage and frequency excursions shall be provided. The time delays shall be 0.1 to 9.9 seconds for voltage and .1 to 15 seconds for frequency.

4. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad, remotely via the communications interface port or USB. As a part of submittals, indicate proposed settings in accordance with manufacturer recommendations and indicate where direction is needed from Owner's Representative on selected settings.

5. The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or BAC). Unacceptable phase rotation shall be indicated on the LCD; the service pLED and the annunciation through the communication protocol and dry contacts. In addition, the phase rotation sensing shall be capable of being disabled, only where approved in writing by the Owner's Representative.

6. The controller shall be capable of detecting a single phasing condition of a source, even though a voltage may be regenerated by the load. This condition is a loss of phase and shall be considered a failed source.

7. Source status screens shall be provided for both normal & emergency to provide digital readout of voltage on all 3 phases (phase to phase and phase to neutral), frequency, and phase rotation.

PART 3 EXECUTIONS:

3.1 Installation

- A. Replace the existing Four (4) Air Circuit Breaker.
- B. Install new Four (4) Air Circuit Breaker
- C. Install 2 ATS Controller and Replaced the existing two (2) ATS Components.

Note: The Installation of the new circuit breakers will required a modification to the Main Bus Bar and Front Panel , the contactor is responsible for all modification and should be accepted by the COR before proceed.

3.2 Construction Schedule

The contractor shall submit, as part of his bid, a computerized detailed schedule showing his activity along with its duration in working days, procedures, and successors, and the total duration of the project.

3.3 Security Procedures

The contractor's personnel shall be subject to all the security procedures required for access clearance of personnel working on U.S. Embassy property Compounds. These requirements shall include:

3.3.1 Access for daily laborers can be given for 5 days, with a 48 hours advance notice showing the name of the persons, ID #, date and place of issue, and a copy of the ID.

Laborers requiring three days access will be given access for one time only.

3.3.2 All contractor personnel shall be subject to a daily check (in and out) by the Embassy guard Force.

Failure of the contractor to fulfill any security requirement in a timely manner shall not be constructed as a base for any time and money extension. Delay or suspension of work due to the US government security regulations or requirements shall not be a base for claims.

PART 4 SAFETY PROCEDURES

4.1 Scope and Application

This document applies to all contractors and subcontractors working at or on American Embassy property owned or leased as specified in the scope of work. While working on U.S. Government projects the contractor or subcontractor are responsible for maintaining at least a minimum amount of safety for the workers and public.

This basic requirement is as follows:

1. Proper Protective Equipment will be worn by workers while in any work area or while performing tasks that create hazards for workers.
 - a. Safety glasses will be worn while performing the following
 - i. Drilling
 - ii. Chiseling, chipping

- iii. Wood working, metal working
 - b. Hearing protection will be provided for all those who operate loud power tools and equipment.
 - c. Hard hats will be worn in areas where falling objects are a hazard.
 - d. Gloves will be worn for cleanup and removal of work area waste.
 - e. Proper footwear will be provided for all workmen (Safety Shoes).
- 2. The contractor will identify a safety officer for each project responsible for the following:
 - 3. Shoring and trenching operations:
 - a. Shoring will be used for any trenching/digging deeper than 5 feet if a slope is not used to in excavation.
 - b. At least one workman will always remain topside
 - c. A ladder that allows for immediate escape will always be available
 - 4. Use of Signs and Barriers
 - a. Barriers and signs shall identify workplace hazards and special instructions.
 - b. Minimum space required to perform work shall be identified
 - c. Ribbon, tape, fencing or portable barriers will create a controlled area around work site.
 - 5. Electrical issues
 - a. All power cords and power taps will be wired appropriately, leaving no exposed wires that are live or could meet staff.
 - b. While connecting electrical system lockout tag-outs will be used the circuit being worked on will be de-energized (turned off at the main breaker)
 - c. Power cords will not rest in areas that are prone to flooding or constantly wet, (i.e. running through puddles on the floor)
 - d. Equipment will be plugged into a standard receptacle not/not wired directly into power taps.
 - 6. Waste cleanup and removal
 - a. All excess or waste materials will be removed from the site at the close of the workday. Debris will be removed to include food bags and containers.

5.0 SCOPE OF WORK

The extent of the electric work shall include but not limited the following:

- 1. Provide Install and Commission Air Circuit Breaker.
- 2. Remove existing 2 ATS Controllers and Install 2 new set of controllers.
- 3. Test and Commission the ACB and ATS and hand over to the COR.